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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,760	12/14/2001	Young C. Ko	KCC-17,473	8158

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EXAMINER
YAO, SAMCHUAN CUA

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,760	KO ET AL.	
	Examiner	Art Unit	
	Sam Chuan C. Yao	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) *7 and 9* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8 and 10-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4-6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A: applying 1st and 2nd superabsorbent precursor compositions by spraying;

Species B: applying 1st and 2nd superabsorbent precursor compositions by printing;

Species C: applying 1st and 2nd superabsorbent precursor compositions by embossing.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, independent claims 1, 18 and 28 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Mr. Maxwell Petersen on 09-11-03 a provisional election was made without traverse to prosecute the invention of claims 1-6, 8 and 10-32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7 and 9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 31-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are indefinite, because the phrase *"the precursor nonwoven web"* does not have a positive antecedent basis.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 10, 12-19, and 21-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Itoh et al (US 4,892,754)

With respect to claims 1, 10, 12,14-19, and 26, Itoh et al teaches a process for making an absorbent web, the process comprises:

a) providing a 1st super-absorbent polymer precursor composition including a monomer (col. 4 line 55 to col. 5 line 43);
b) providing a 2nd super-absorbent polymer precursor composition including a water soluble radical polymerization initiator (col. 5 lines 44-51);
c) providing a prefabricated fibrous web including natural cellulosic fibers and/or (polyester fibers or other thermoplastic fibers) (col. 5 line 64 to col. 6 line 5);
d) separately and sequentially (i.e. two different stages) applying the 1st and 2nd super-absorbent polymer precursor compositions to the fibrous web, wherein the

precursor compositions come into contact with each other (col. 6 lines 49-59; col. 6 lines 33-46; example 2); and,

e) chemically reacting the 1st and 2nd super-absorbent polymer precursor compositions in or on the fibrous web (col. 7 lines 7-29).

With respect to claims 2-3 and 29-30, see column 11 lines 20-23 & lines 53-56. Moreover, Itoh et al teaches applying 1st and 2nd super-absorbent polymer precursor compositions in a mist form. In general, sprayed mists have a diameter range that fall within or overlap with the range recited in these claims.

With respect to claim 13, although not explicitly disclosed, the 1st and 2nd super-absorbent polymer precursor compositions in the process of Itoh et al should/would, at least to a certain degree, spontaneously react to each other, because the compositions, for instance, hydrogen peroxide (i.e. polymerization initiator) and acrylic acid and salts thereof (i.e. monomer) taught by Itoh et al are essentially identical to the compositions disclosed in the present invention.

With respect to claims 21-22, see column 4 line 56 to column 5 line 21.

With respect to claims 23-25, see column 7 lines 26-36.

With respect to claim 27, see column 12 lines 19-21.

With respect to claims 28 and 31, the recited compositions of a non-woven web in these claims read on using 100% by weight absorbent fibers such as wood pulp, cotton, etc. (col. 5 lines 64-68). As for the recited steps of adding 1st and 2nd superabsorbent compositions in a dropwise manner, this limitation reads on applying

the 1st and 2nd super-absorbent polymer precursor compositions in a *"mist form"*(col. 8 lines 32-46).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 4-6, 11, 20 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al (US 4,892,754) as applied to claim 1, 18 or 28 above.

With respect to claims 4-6, the recited viscosity range is conventional in the art. One in the art would have determined, by routine experimentation, a workable viscosity range in order to effective impregnate a fiber web with superabsorbent compositions.

With respect to claims 11 and 20, Itoh et al is not restrictive to a particular method of applying 1st and 2nd superabsorbent compositions as evidence from the fact that Itoh et al teaches various alternative methods of applying the compositions (col. 8 lines 1-6). The method ranges from: a) blending 1st and 2nd superabsorbent precursor compositions before applying the composition to a fiber web; and, b) sequentially applying 1st and 2nd superabsorbent precursor compositions to a fiber web. Moreover, since it is old in the art to separately apply various elements in a multi-component composition in a single stage to a fiber web and since a preference on whether to separately apply 1st and 2nd superabsorbent compositions in a single

stage or two stages process is taken to be well within the purview of choice in the art, this claim would have been obvious in the art.

With respect to claim 32, since the recited composition range in a pre-formed non-woven web is notoriously well known in the art, this claim would have been obvious in the art.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al (US 4,892,754) as applied to claim 1 above, and further in view of Soderlund (US 5,248,524) and Trokhan et al (US 5,547,747).

Since it is well known in the art to apply a superabsorbent material to a fiber web in a desired pattern by spraying as exemplified in the teachings of Soderlund (abstract; figures 8-9); and since Trokhan et al teaches the difficulty of spraying a superabsorbent material to a fiber web in a precise pattern and suggest using a printing method to precisely apply a superabsorbent material to a fiber web (col. 1 line 21 to col. 2 line 23), this claim would have been obvious in the art.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (703) 308-4788. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W Ball can be reached on (703) 308-2058. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
09-14-03